WAIS Inc. Publishing: Systems & Services

WAIS evolution

- Brewster Kahle - Thinking Machines, Inc.
- Government Agencies - mid/late 80's
  - ◊ Intelligence Community
    - Lots of Content - Geographically Dispersed Databases
- The "Wide Area Information Server" Consortium - 1989 -1991
  - ◊ Thinking Machines (search software and prototype implementation)
  - ◊ Apple Computer (client software design)
  - ◊ Dow Jones & Co (content)
  - ◊ KPMG Peat Marwick (customer that understands integration)

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WAIS evolution (cont.)

- First Freeware version released to the Internet - April, 1991
  - ◊ Public domain source code (server, protocol and client)
- Brewster Kahle leaves TMC to build a UNIX-based server system for Perot Systems and other customers - WAIS Inc. is born in Menlo Park, California - July, 1992
- WAISserver 1.0 ships - April, 1993
- WAISserver 2.0 ships - October, 1994

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WAIS Inc. early customers

- WAISserver - Sold to Government Agencies, Universities, Hi-Tech Corporations
- Production Services
  - ◊ Dow Jones & Co.
  - ◊ Encyclopædia Britannica
  - ◊ Scholastic, Inc.
- Publishers gave WAIS Inc. the data and asked for a publishing system
  - ◊ Integrate Searching with Gopher server
    - No graphics - open and close files

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Then came the WWW - 1993

- Point and Click with fancy graphics, but the WWW server provided no professional publishing tools
- Publishers asked WAIS Inc. to integrate the WAISserver with their WWW servers
  - ◊ Searching with natural language queries
  - ◊ Usage Statistics- who is looking at what
  - ◊ WAISserver could be used with any WWW server software
    - CERN (creators of the WWW architecture)
    - NCSA (home of Mosaic)
    - Netsite (Netscape)
    - Spry

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Where WAISserver Fits
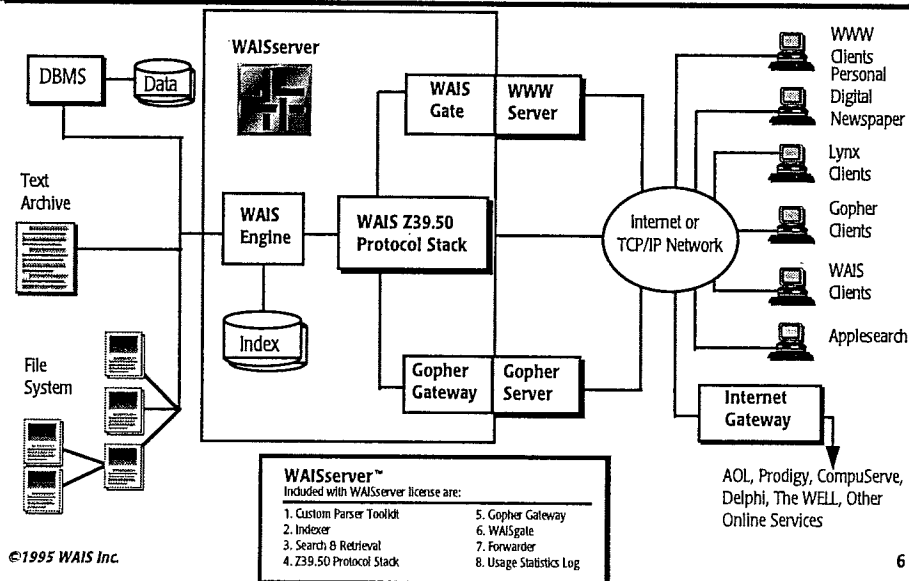
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Publishers wanted more

- Advertising
- User registration
- Content Alerting Options
- Usage Reports from the stats being collected
- Hosting Services

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WAIS Inc. enhanced WWW

With WWW server and WAISserver running together, WAIS Inc.
started enhancing WWW services with various forms of all of the
following modules:

- Advertising
  - ◊ Logo only
  - ◊ Logo with sponsors WWW message
  - ◊ Logo with sponsors WWW server
  - ◊ Specific search queries result in selected logo/icon
  - ◊ Reports to provide sponsors with 'number of hits' report(s)

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WAIS Inc. enhancements

- Registration
  - ◊ Basic user authentication (name & password)
  - ◊ Demographics
  - ◊ Send demographics to publisher
  - ◊ Establish and maintain a database for publisher
  - ◊ Reports by department or publication cut various ways
  - ◊ Tie user demographics to advertising 'hits'
- Billing
  - ◊ Collect financial information and forward to publisher
  - ◊ Collect financial information and credit account
  - ◊ Subscription
  - ◊ Transaction (pay as you go)
  - ◊ Personalized invoicing

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WAIS Inc. enhancements

- Content Expiration
  - ◊ Automatically delete old information (sales, specials,etc.)
- Facsimile
  - ◊ Fill in online form and receive facsimile response
  - ◊ Dial for a WWW facsimile page(s)
  - ◊ Automatically receive facsimile of new content
- Management Reports
  - ◊ Stats on total usage
  - ◊ Technical stats to 'tune' the system
  - ◊ Registration database cuts (see above)

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WAIS Inc. enhancements

- Audio
  - ◊ Audio clips (WAISserver can index almost anything)
  - ◊ Download audio clips
  - ◊ Search result is in audio format
  - ◊ Radio & live information
- Video
  - ◊ Video clips (WAISserver can index almost anything)
  - ◊ Download video clip
  - ◊ Continuously running video clips
- Bulletin Boards/Letters to the Editor/CHAT

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WAIS Inc. enhancements

- Contests/Trivia/etc.
  - ◊ Forms for submitting answers on HTML pages that go on and on
- Gift-of-the-day/Highlight-of-the-day
  - ◊ Free news stories, sports clip, this-date-in-history that automatically changes on a daily basis
- User Satisfaction Survey(s)
  - ◊ Basic form with responses going to. . .
  - ◊ Need to summarize into reports
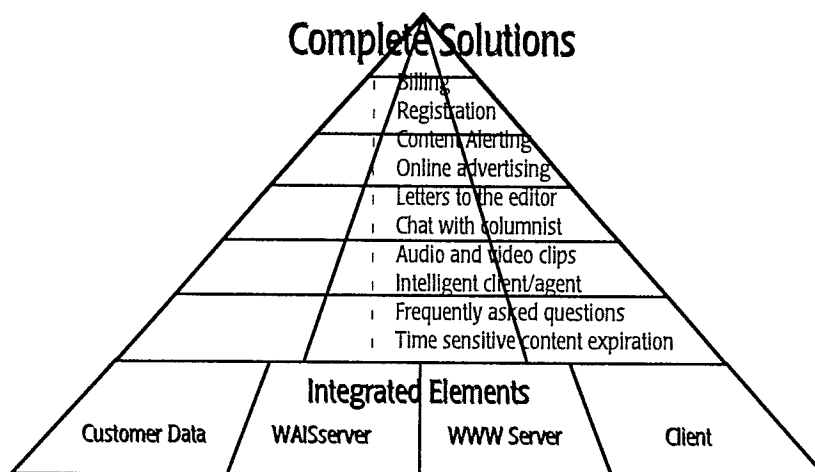
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WAIS Inc. enhancements

- Notification of New Content
  - ◊ Learn the habit of the end-user and notify them of new content automatically
  - ◊ Store last 10 searches
- Personal Digital Newspaper
  - ◊ Putting the power for personal profiling in the users hand
- Forms-based searching
  - ◊ Coaching the end-user to what they need (travel agent questionnaire about your personal vacation parameters which initiates a WAISserver search in the background)

Production Services

Complete Solutions

Billing
Registration
Content Alerting
Online advertising
Letters to the editor
Chat with columnist
Audio and video clips
Intelligent client/agent
Frequently asked questions
Time sensitive content expiration

Integrated Elements

| Customer Data | WAISserver | WWW Server | Client |

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Is WAIS Inc. too expensive?

Perception at America Online that WAIS Inc. is twice as expensive

- Competition is HTML shops that do a home page and an ad
  - ◊ Very early in the learning curve
  - ◊ Unaware of total cost of running services
- Only comparison are companies that hire teams of five or more people
  - ◊ Able to leverage service expertise over multiple publishing partners

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WAIS Inc. Production Process

COMPANY CONFIDENTIAL

1. Educate, Define Objective, Surf (sales team)
   - ◊ Educate customer on WWW, Gopher, WAIS technologies
   - ◊ What is the objective for the WWW service?
     - Marketing Exposure
     - Revenue (front-end and/or back-end)
     - Enhancement to another service (AOL, Print, etc.)
   - ◊ Understand the customers' competing services and WWW servers
     - Surf the net with the customer looking at competing/complimentary service

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WAIS Inc. Production Process

2. Determine modules and technologies desired/required
    (sales team)
    ◊ WWW with WAISserver
    ◊ Advertising (how complex from the table above)
    ◊ Registration (how does the publisher want it to work if
       there were no limits on the technology

3. Where will the data come from? (sales team)
    ◊ Multiple databases/satellite feeds/Corporate archives?
    ◊ Cluster of corporate assets? (Word, Quark, Graphics, etc.)

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WAIS Inc. Production Process

3 (cont'd).   Where will the data come from? (sales team)
    ◊ Is data clean? (fragmented, readable with a 1990's
       technology)
    ◊ Does data exist? (new WWW venture may not have
       data)
    ◊ How often does the data change by department,
       publication, etc.? (daily, weekly, monthly, dynamic,
       combination)
    ◊ How much data is there? (megabytes, gigabytes, etc.)

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WAIS Inc. Production Process

4. How do we get the data? (sales team)
   ◊ Prefer FTP server on the Internet
   ◊ Background WWW server
   ◊ Tape, CD, other? (overnight carrier, US Mail)
   ◊ Satellite feed
   ◊ Dial-up
   ◊ Is WAIS Inc. to build an archive from the data received from this day forward?

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WAIS Inc. Production Process

5. Look and Feel (sales team)
   ◊ Put technical hat away and assist the customer in drawing out what they need/want
       • Assume there is no limit to the technology
       • What should the user-experience be?
   ◊ Graphics and artwork
       • WAIS to create or customer to assist from their graphics dept.

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WAIS Inc. Production Process

6. Proposal (sales team and production services)
    ◊ Only after items #1-#6 are answered can WAIS Inc.
      propose a comprehensive WWW server solution
    ◊ WAIS Inc. Production Services Manager must see data
      from #3
    ◊ Production Services Manager signs off on milestones,
      assumptions and data samples obtained above in
      proposal
    ◊ Publisher frequently has us re-propose upon seeing
      proposal design from WAIS Inc.

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WAIS Inc. Production Process

7. Purchase order (sales team)
    ◊ Prefer contract, but PO with payments for milestones is
      sufficient
    ◊ Contract may not be appropriate based on undefined
      issues above or what is included in maintainence once
      the system is completed

8. Design (production services)
    ◊ Storyboard developed for prioritizing module
      implementation
    ◊ Refine sales proposal into a systems requirement/
      specification that publisher/partner will sign

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WAIS Inc. Production **Process**

◊ Obtain data and test process on getting data in a consistent format
◊ Determine what feed handlers will be required and spec them
◊ Provide publisher with detailed mock-up
   • HTML
   • Graphical Design
   • Search area with fake data
   • Sample ad
   • How user registration will appear to end-user
◊ (Sales team polices process for 'creeping feature syndrome' with production service manager)

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WAIS Inc. Production **Process**

9. Publisher sign-off on requirement/spec document and mock-up (production services)
   ◊ Publisher and WAIS Inc. agree on changes to System Requirements and/or System Specification
   ◊ Publisher explains desired changes to mock-up
      • Graphics changed or moved
      • Different fields for searchng
      • Copyright notices, legal issues surface
      • Determine if new/different data required
   ◊ (Sales team renegotiates based on new databases, new features, etc.)

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WAIS Inc. Production **Process**

10. Build the System (production services)
    ◊ Build the feed handlers
    ◊ Get data in consistent format(s)
    ◊ Build the databases
    ◊ Integrate the databases
    ◊ Establish links to other WWW sites, content
    ◊ Obtain hardware and software required
    ◊ Build maintenance software (staging areas, customer trigger files, reports)

WAIS Inc. Production **Process**

11. Launch System (production services and customer service)
    ◊ Train the customer
    ◊ Test staging areas and trigger files
    ◊ Drive sample reports
    ◊ Communicate maintenance and escalation procedures
    ◊ Participate in marketing and press releases
    ◊ WAIS Inc. customer service assumes responsibility
    ◊ Determine maintenance costs and sign contract if not completed

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WAIS Inc. Production Process

12. On-going support and maintenance (customer service)
    ◊ Server(s) running at WAIS Inc. or at publisher location
    ◊ Daily, weekly, monthly reports
    ◊ 7x24 operation (modify procedures- trouble reporting/escalation)
    ◊ Sales proposes changes required (then back to production services)
    ◊ Client problems (I can't access the server with 'X' client)
    ◊ Update advertising links, monitor data feeds, etc.
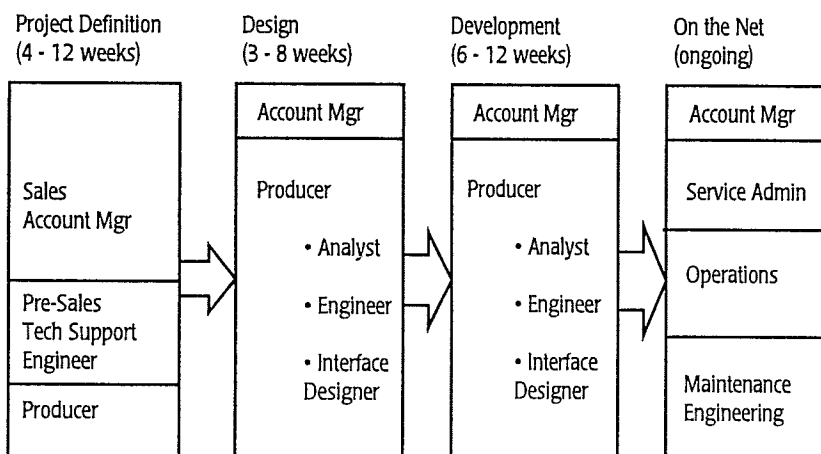   ◊ Monitor usage stats to ensure proper bandwidth, storage, RAM, processing power, etc.

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A team approach...

Project Definition (4 - 12 weeks)	Design (3 - 8 weeks)	Development (6 - 12 weeks)	On the Net (ongoing)
	Account Mgr	Account Mgr	Account Mgr
Sales Account Mgr	Producer	Producer	Service Admin
	• Analyst	• Analyst	Operations
Pre-Sales Tech Support Engineer	• Engineer	• Engineer	
	• Interface Designer	• Interface Designer	Maintenance Engineering
Producer			

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There is an alternative!

- For $25,000 to $50,000 WAIS Inc. will contract for items #1 to #8 and/or #9
- Desirable alternative for WAIS Inc. in most circumstances
  ◊ Look and Feel always changes
  ◊ Databases change
  ◊ Other departments get excited and want in
  ◊ Allows us to do fixed price without having to drive for items #1- #5 prior to proposal when the publisher doesn't have answers to these items

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There is an alternative!

- Advantageous for publisher
  ◊ Allows publisher to determine what they need without contracting based on unknowns
  ◊ Provides them with a system requirement/specification document and working mock-up for WAIS Inc. to provide a fixed fee bid to proceed OR for publisher to bid on the market
  ◊ Limits exposure on a project that people do not understand

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Working with America Online IP's

1-A) The model above contracted for directly between WAIS Inc. and IP
◊ Usually $100K to $500K to build based on
- The data (how much/different/often, how do we get it?)
- The 'modules' desired and/or required
- How deep the modules go (ie. registration with authentication, database, tieing the database to reports, etc.)1-A)
◊ Maintenance of $5K to $25K per month based on
- Who runs the server?
- How often is content updated?
- How many and dynamic are reports?
- Who does the day-to-day advertiser updates, etc.?
- Does the publisher take the initial call for trouble reporting from the end-user?

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Working with America Online IP's Cont.

1-B) America Online contracts WAIS Inc. to build service and subsidizes the development fees
◊ $150,000 project completed with $75,000 from the IP and $75,000 from America Online brand
◊ Maintenance negotiable with minimum monthly guaranteed to ensure server uptime

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Working with America Online IP's Cont.

2) Revenue Sharing
  ◊ WAIS Inc. does development for $0 based on the following revenue sharing outline

Item	Percentage
Where does the content come from?	40%
Who does billing, sales & marketing?	30%
Who runs the server?	20%
Any special client software (PDN)?	10%

Working with America Online IP's Cont.

◊ Usually results in WAIS Inc. receiving 20% for server operations and 10% for client software development/ support. 40% for content usually goes to the publisher/ IP, and billing, sales and marketing is negotiated

◊ REQUIRES DUE DILIGENCE BY WAIS INC. ON THE PUBLISHER/IP PRIOR TO AN AGREEMENT TO DESIGN/ BUILD/MAINTAIN
  • Microsoft Network requires publishers to wait 2 months as their proposal is being evaluated
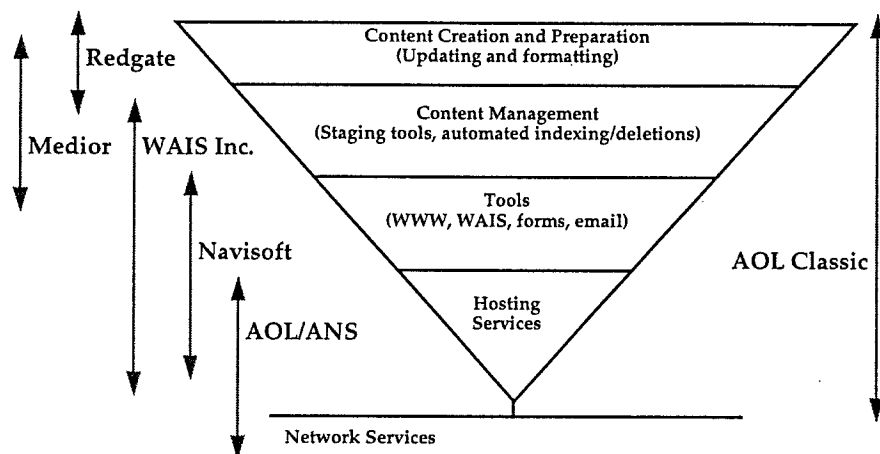
Other Considerations

- IP who wants basic WWW site (home page, no searching/modules)
    - ◊ Call WAIS to determine possibilities
        - WAIS Inc. VAR builds it for the Publisher/IP; AOL Account team maintains control
        - NaviSoft tools
        - WAIS Inc. tools (WAISserver)
        - AOL Brand to eventually provide WWW authoring tools for Grandma and small businesses

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Other Considerations

- Major IP who wants to start small (home page only or subsidiary interest)
    - ◊ Call WAIS Inc. for joint meetings to scope corporate parameters prior to a subsidiary setting the wrong direction
    - ◊ May be appropriate for WAIS Inc. to build a set of templates for subsidiaries/departments for consistent look and feel
        - Integrating independent servers easier in the future
        - Agree on consistent database formats for future
    - ◊ Local VAR or HTML house can build based on corporate direction, but includes considerations from AOL/WAIS

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What it takes...

Content Creation and Preparation
(Updating and formatting)

Content Management
(Staging tools, automated indexing/deletions)

Tools
(WWW, WAIS, forms, email)

Hosting Services

Redgate

Medior

WAIS Inc.

Navisoft

AOL/ANS

AOL Classic

Network Services

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Who's Who at WAIS Inc.

- Brewster Kahle- Ceo   brewster@wais.com   415-356-5410
  Technology, strategic alliances, etc.

- David Kaiser- President   david@wais.com   415-346-5427
  P&L, Operations, Satisfying AOL

- Bruce Gilliat- VP, Sales & Mktg   bruce@wais.com   415-356-5407
  Product & Production Services Sales, Mktg

- John Duhring- VP, Bus. Devel.   duhring@wais.com   415-356-5406
  Relationships with DEC, HP, SUN, NetScape

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Who's Who at WAIS Inc.

- Edy Henderson- VP, Development   edy@wais.com   415-356-5443
  New Product Development & WAISserver features
- Nick Scharf- VP, Finance   nick@wais.com   415-356-5426
  Finance, HR, acting VP Production Services
- Don Whitt- Director of Operations   don@wais.com   415-356-5434

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Address	Wide Area Information Servers, Inc. (WAIS Inc.) 690 Fifth Street San Francisco, CA 94107-1517

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